

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
*( Not for submission under 37 CFR 1.99)*

Application Number	10522320
Filing Date	2005-10-17
First Named Inventor	John L. Schenk
Art Unit	1657
Examiner Name	Tiffany M. Gough
Attorney Docket Number	XY-Optimum-USNP

U.S.PATENTS							Remove
Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	
	1						

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS							Remove
Examiner Initial*	Cite No	Publication Number	Kind Code <sup>1</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	
	1	20060281176	A1	2006-12-14	Seidel et al.		

If you wish to add additional U.S. Published Application citation information please click the Add button

FOREIGN PATENT DOCUMENTS							Remove	
Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup> i	Kind Code <sup>4</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T5
	1							<input type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS							Remove
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.					T5

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /TG/

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number	10522320	10522320 - GAU: 1657
Filing Date	2005-10-17	
First Named Inventor	John L. Schenk	
Art Unit	1657	
Examiner Name	Tiffany M. Gough	
Attorney Docket Number	XY-Optimum-USNP	

1	United States Application Number: 11/092,313, Response to Election filed by Applicant on 9/11/2006	<input type="checkbox"/>
2	United States Application Number: 11/092,313, Office Action dated 10/6/2006	<input type="checkbox"/>
3	United States Application Number: 11/092,509, Office Action dated 07/21/2006	<input type="checkbox"/>
4	Garner, D.L. et al., Viability Assessment of Mammalian Sperm Using SYBR-14 and Propidium Iodide, 1996, Biology of Reproduction, Vol.53, pp 276-284	<input type="checkbox"/>
5	Salisbury, G.W. et al., Substrate-Free Epididymal-Like Bovine Spermatozoa, J Reprod Fertil, 1963, Vol. 6, pp. 351-359	<input type="checkbox"/>
6	Wong, P.Y.D., et al. Potassium Movement During sodium-Induced Motility Initiation in the Rat Caudal Epididymal Spermatozoa; Biology of Reproduction 28, 206-212 (1983)	<input type="checkbox"/>
7	Shirai, H., et al. Regulation of Sperm Motility in Starfish; Development, Growth, and Differentiation; 24, (5), 419-428 (1982)	<input type="checkbox"/>
8	Padilla, A.W. et al. Extender and Centrifugation Effects on the Motility Patterns of Slow-Cooled Stallion Spermatozoa; J. Anim. Sci 1991, 69:3308-3313	<input type="checkbox"/>
9	Ohta H., et al., Acquisition and Loss of Potential for Motility Of spermatozoa of the Japanese Eel Anguilla Japonica, National Research Institute of Aquaculture, Nansai, Mie	<input type="checkbox"/>
10	Morisawa, M. The Process of the Initiation of Sperm Motility, Laboratory of Physiology, Ocean Research Institute, University of Tokyo	<input type="checkbox"/>
11	McGrady, A.V., et al. Cholinergic Effects on Bull and Chimpanzee Sperm Motility; Biology of Reproduction 15, 248-253 (1976)	<input type="checkbox"/>

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /TG/

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number	10522320	10522320 - GAU: 1657
Filing Date	2005-10-17	
First Named Inventor	John L. Schenk	
Art Unit	1657	
Examiner Name	Tiffany M. Gough	
Attorney Docket Number	XY-Optimum-USNP	

12	Klinc, P. Dissertation - Improved Fertility of Flowcytometrically Sex Selected Bull Spermatozoa , School of Veterinary Medicine Hanover Germany, 2005	<input type="checkbox"/>
13	Jones, J.M. et al Acidification of Intracellular pH in Bovine Spermatozoa Suppresses Motility and Extends Viable Life, Journal of Andrology, Vol. 21, No. 5, September/October 616-624	<input type="checkbox"/>
14	Jenkins, A. D., et al. Concentrations of Seven Elements in the Intraluminal Fluids of the Rat Seminiferous Tubules, ReteTestis, and Epididymis; Biology of Reproduction 23, 981-987 (1980)	<input type="checkbox"/>
15	Darszon, A., et al. Ion Channels in Sperm Physiology, Physiological Reviews, Vol. 27, No. 2, April 1999	<input type="checkbox"/>
16	Christen, R., et al. Metabolism of Sea Urchin Sperm, the Journal of Biological Chemistry, Vol 25, NO. 9, Issue of May 10, pp.	<input type="checkbox"/>
17	Babcock, D. F., et al. Potassium-dependent increases in cytosolic pH stimulate metabolism and motility of mammalian sperm, Proc. Natl. Acad. Sci. USA, Vol. 80, pp. 1327-1331, March 1983	<input type="checkbox"/>
18	Zilli, L., et al. Adenosine Triphosphate Concentration and $\beta$ -D-Glucuron idase Activity as Indicators of Sea Bass Semen Quality; Biology of Reproduction 70,1679–1684 (2004) Published online before print 11 February 2004.	<input type="checkbox"/>
19	Hanania, E. G, et al. A novel Automated Method of Scanning Cytometry and Laser-Induced Necrosis Applied to Tumor Cell Purging, Blood. 15 November 1999, Vol. 94, No. 10, suppl 1 part 1	<input type="checkbox"/>
20	Purdy, P. H. et al., Effect of Adding Cholesterol to Bull Sperm Membranes on Sperm Capacitation, the Acrosome Reaction, and Fertility, Biology of Reproduction 71, 522-527 (2004)	<input type="checkbox"/>
21	Purdy, P. H. et al., Effect of cholesterol-loaded cyclodextrin on the cryosurvival of bull sperm, Cryobiology 48 (2004) 36-45	<input type="checkbox"/>
22	Moce E., et al., Cholesterol-loaded cyclodextrins added to fresh bull ejaculates improve sperm cryosurvival, J. Anim. Sci. 2006, 84:826-833	<input type="checkbox"/>

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /TG/

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number	10522320	10522320 - GAU: 1657
Filing Date	2005-10-17	
First Named Inventor	John L. Schenk	
Art Unit	1657	
Examiner Name	Tiffany M. Gough	
Attorney Docket Number	XY-Optimum-USNP	

If you wish to add additional non-patent literature document citation information please click the Add button

**Add**

**EXAMINER SIGNATURE**

Examiner Signature	/Tiffany Gough/	Date Considered	06/20/2008
--------------------	-----------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> See Kind Codes of USPTO Patent Documents at [www.USPTO.GOV](http://www.USPTO.GOV) or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number	10522320	10522320 - GAU: 1657
Filing Date	2005-10-17	
First Named Inventor	John L. Schenk	
Art Unit	1657	
Examiner Name	Tiffany M. Gough	
Attorney Docket Number	XY-Optimum-USNP	

**CERTIFICATION STATEMENT**

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

**OR**

That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.  
 Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.  
 None

**SIGNATURE**

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Nicole A. Ressue/	Date (YYYY-MM-DD)	2007-01-18
Name/Print	Nicole A. Ressue	Registration Number	48,665

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /TG/

## Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /TG/